



Oregon

Kate Brown, Governor

Department of Environmental Quality

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January 9, 2018

Electronic Delivery

Mr. Myron Burr,
Siltronic Corporation
7200 NW Front Avenue, M/S 30
Portland, Oregon 97210-3676

**RE: Reiteration of request for Stormwater Source Control Measures Implementation and Effectiveness
Monitoring Plan
Siltronic Corporation Site
Portland, Oregon
ECSI #183**

Dear Mr. Burr:

DEQ received the Maul, Foster, and Alongi, Inc. (MFA) letter, dated November 28, 2017, that provides unsolicited responses to DEQ's comment letter, dated September 27, 2017. DEQ's September 27th letter provides comments on two memoranda dated August 15, 2017: 1) *Results of the overland flow assessment for the Siltronic Stormwater Source Control Evaluation* (Overland Flow Assessment) and 2) *Results of the groundwater intrusion pathway assessment for the Siltronic Stormwater Source Control Evaluation* (Groundwater Intrusion Assessment). Both memoranda were prepared by MFA on behalf of the Siltronic Corporation (Siltronic).

DEQ's September 27th letter informed Siltronic of our determination that overland flows from Areas B and C and entering CB-67 have the potential to entrain and transport legacy contamination associated with on-site fill, are complete discharge pathways to the Doane Creek and/or the Willamette River and that source controls or further evaluation are required. DEQ requested that Siltronic submit a stand-alone plan, prepared consistent with Appendix B of DEQ's Guidance, for our review and approval by November 28, 2017. While Siltronic's November 28, 2017 letter provides a bulleted list of some proposed action items and a schedule, the letter does not address our request for a source control measures evaluation plan.

The primary purpose of this letter is to reiterate DEQ's September 27th request for Siltronic to submit a plan and schedule for implementing site stormwater source control measures, monitoring and reporting. Preparation of the plan is consistent with the status of the stormwater source control evaluation, the requirements of the Portland Harbor source control evaluation process, provides the basis for DEQ to make a source control determination for stormwater at the Siltronic Site and is necessary for communicating our determination to EPA.

DEQ considered the November 28th letter, and in the interest of Siltronic submitting an approvable source control measures evaluation plan, DEQ is providing the following comments for Siltronic's information and use in preparing the plan.

As indicated in our September 27th letter, the plan should follow the template in Appendix B of DEQ's Guidance. DEQ acknowledges that alterations to the template are appropriate to suit site-specific situations. In the case of the Siltronic Site, information prepared for Sections 1 and 2 should briefly summarize information reported in previous submittals, including the Overland Flow Assessment and Groundwater Intrusion Assessment, the 2010 Stormwater Source Control Evaluation and past 1200Z sampling. For project clarity and completeness, the plan should also incorporate the planned groundwater intrusion sampling scope of work that DEQ's September 27th letter conditionally approved.

Regarding the conceptual action item bullets in the November 28th letter, Siltronic should use the comments that follow to adapt the template for Sections 3 and 4 of the plan.

1. Sampling of influent into CB-67, along with previous sampling results down pipe, should be sufficient to support a determination as to whether or not source control measures are needed.
 - a. Sampling should be targeted to capture overland flows in response to saturation conditions due to heavy rains or back-to-back storms; situations that may be in contrast to the minimum requirements and antecedent dry period protocols in DEQ's Guidance.
 - b. A minimum of four sampling events are recommended in DEQ's Guidance. However, DEQ will consider a proposal for reduced sampling, following evaluation of the results of the first two sampling events.
 - c. Thought should be given to what controls can be implemented for flows into CB-67, in the event that contaminant concentrations require source controls.
2. A variety of potential options may be implemented to eliminate overland flows from Area C to the river. DEQ recommends that the plan utilize a feasibility study-like approach to document and select appropriate site-specific measures, including evaluating options in terms of effectiveness, implementability, long term reliability and reasonableness of cost. A prudent approach may be for Siltronic to identify step-wise actions to be implemented, as needed, in response to effectiveness monitoring observations.
3. Demonstration of effectiveness of the implemented measures may not require sampling. Depending on measures selected, documentation of observations or a combination of other data collection may be most appropriate. For example, a source control measure that verifiably prevents overland flow to the river will achieve source control.
4. DEQ acknowledges that there are potentially multiple sources of contamination in and around the Front Avenue right-of-way that may comele with overland flows from Area B prior to discharge into Doane Creek. Ownership or control of the right-of-way, stormwater conveyance infrastructure, and surrounding tax lots involves multiple parties (Northwest Natural, City of Portland, Oregon Department of Transportation, Siltronic, and BNSF Railroad). Northwest Natural is currently conducting a Source Control Evaluation of Doane Creek that will compile and evaluate data available for the stormwater conveyance system in the right-of-way. Discussions of multi-party responsibility for any necessary actions within these comeingled areas will be determined following conclusion of the Northwest Natural's Source Control Evaluation.
5. Please prepare and submit the requested plan for monitoring influent into CB-67 within 14 days of this letter, or by January 23, 2018, in order to achieve approval and complete sampling during the current rainy season. Please incorporate the approved subsection into the full plan for submittal within 60 days of this letter, or by March 12, 2018, to facilitate approval and source control measure implementation prior to the onset of rains again in the fall of 2018.

As noted above, to improve simplicity and clarity of the assessments regarding the stormwater pathway and infrastructure at the site, DEQ supports inclusion of the planned and conditionally approved groundwater intrusion sampling into the requested plan. Whether or not you include groundwater intrusion sampling in the plan, be advised that DEQ's November 17, 2017 letter conditionally approving groundwater intrusion sampling required that sample collection coincides with seasonal dry weather stormwater conditions and groundwater levels intersecting with stormwater piping/backfill. Siltronic's proposal to conduct sampling in March 2018 is unlikely to meet the criterion for dry stormwater flows as precipitation is common during this month. Consequently, sampling should occur later in the season than proposed in the November 28th letter (e.g., late spring or early summer). Please ensure this requirement is met when scheduling sampling.

If you have questions on this letter, I can be reached at liverman.alex@deq.state.or.us or 503-229-5080 or at the address on this letterhead.

Sincerely,

A handwritten signature in dark ink, appearing to read 'L. Liverman', with a stylized flourish at the end.

L. Alexandra Liverman

cc: Ilene Munk, Foley & Mansfield
David Rabbino, Jordan Ramis
David Weatherby, MFA
Mike Murray, MFA
Bob Wyatt, NW Natural
Patty Dost, Pearl Legal Group
Todd Thornburg, Anchor QEA, LLC

Rob Ede, Hahn and Associates, Inc.
Sean Sheldrake, EPA
Dana Bayuk, DEQ
Keith Johnson, DEQ
Cindy Ryals, City of Portland
ECSI #183 File
ECSI #84 File